

# Columbia/Snake River Temperature TMDL Meeting

Feb 4, 2003 - Boise, ID

## Attendance List

<u>Name</u>	<u>Agency</u>	<u>Phone Number</u>
Monte McClelland	USBR	208-378-5036
Steve Buckley	USBR	208-378-5033
Karl Wirkus	USBR	208-378-5300
Jim Werwitz	EPA - Boise	208-378-5743
Dave Pongonis	Corps	503-808-3828
Rick Parkin	EPA - SEATTLE	206-553-8574
John Yearsley	EPA - SEATTLE	206-553-1532
Bill McDonald	USBR	208-378-5012
Mary Lou Soska	EPA - Portland	503-326-5873
Dave Zimmer	USBR	(208) 378-5088
Ken Pedde (late)		

Phone	Craig Sprinkle	USBR - G. Coulter
	John Gleason	BPA

Columbia/Snake River Temperature TMDL  
Feb 4, 2003 Meeting EPA and FCRPS Action Agencies  
Technical Discussion Outline

- I. Water Temperature coming in from Canada may have been warmed by the Canadian Projects.
- Figure 1 summarizes water temperature at the Canadian Border roughly before and after construction of the Canadian Dams.
  - The later period does have warmer temperatures: up to 2°C.
  - Data quality is very poor, especially for the later period.
  - It isn't clear how much of the difference results from Canadian projects versus climate.
  - The second time period appears to have been during a warmer, low flow climate regime while the first period was part of a cooler, wetter regime.
  - Canadian data on the Frazier River indicates that it has warmed up about 0.9 °C in the last 40 years.
  - Figures 2-4 demonstrate the effects on river temperature if the Canadian inflows are lowered 2 °C.
  - Figure 5 demonstrates how equilibrium temperature tends to attenuate the downstream temperature differences caused by different inflow temperatures.
- II. Tributary inflows are nearly 80% of the inflow from Canada. Shouldn't they have a larger effect on temperature?
- Figure 6 demonstrates how equilibrium temperature tends to attenuate the downstream temperature effects of tributaries.
  - Model shows a number of different scenarios.
- III. What is the statistical uncertainty around model simulations used for the TMDL?
- Figures 7-9 demonstrate the 90 % confidence range for Bonneville, Priest Rapids and Ice Harbor around the difference: simulated values - observed values.
- IV. If a WA only TMDL was done, would the effect on dams be as great?
- To meet the 1.1 °C increase when site potential temperature is less than criteria in the lower river reaches, each dam could increase water temperature about 0.12 °C.
  - When site potential is over criteria the total allowed increase is 0.3 °C as opposed to 0.14 with the OR standard. We haven't done the analysis but each dam would probably be allocated about 0.02 to 0.04 °C

V. Effects of Existence vs Operation